



## **11400 South Concrete Paving**

Fall 2009- Fall 2010

### **Overview**

Portland Cement Concrete Paving (PCCP) will be used throughout the 11400 South roadway and interchange. PCCP was chosen over asphalt for its durability and strength.

### **What is the Life Expectancy of the Pavement?**

- The life of the new 11400 South pavement will be 40 years. PCCP typically lasts 20-30 years before maintenance is required.
- The life of most asphalt pavement is 10 years, requiring regular maintenance in as little as eight years.

### **What is PCCP?**

- PCCP is a mixture of aggregates, sand, cement powder and water. Mix designs have been specifically developed for the 11400 South Project to produce a durable, high quality pavement.
- Additional materials will be added for protection and durability during Utah's seasonal freeze-thaw cycles.
- All materials in the 11400 South PCCP mix design are produced in Utah.

### **What Equipment Will Be Used to Lay the Concrete?**

- A slip form paving machine will be used to spread the concrete and form the roadway.
- A loader will move the wet concrete closer to the slip form paving machine.
- After the concrete is placed, a texture/cure machine will add texture to the surface for traction, drainage and noise reduction. The machine will spray a curing compound on the new pavement.

### **What is the Paving Process**

- On mainline I-15, pavement will be placed in 24-foot widths, with some 12-foot sections and hand pours. The pavement on I-15 will be 13 inches thick.
- The pavement on 11400 South will be placed in 24- and 12-foot widths, with frequent hand pours at driveways and intersections. The pavement on 11400 South will be 11 inches thick.
- After the pavement is placed a minimum of seven days will be required before vehicles can drive on it. "Curing" is dependant on temperature, wind, humidity and the amount of concrete placed.
- 12 to 24 hours after the pavement is placed, control joints will be saw cut into the fresh concrete (green cutting) to provide for expansion and contraction and control any cracking that could occur.

### **What Can I Expect?**

- Due to the nature of concrete paving and its cure time, you may experience property access restrictions. The 11400 South Team will give advanced notice of these restrictions, coordinate access to driveways and side streets and ensure delivery of mail, newspapers and garbage collection during paving operations.
- Concrete paving can be noisy. Expect noise from paving and saw cutting, back up alarms on equipment and other construction activities.
- Night work may be required in order to saw cut in the control joints while the concrete is still fresh. Noise from this process could occur at any time.
- You may experience vibrations from the equipment used during paving.
- Crews will pave one side of the road at a time. Traffic will switch accordingly to maintain two-way traffic.

**Fun Facts:**

- Approximately three million square-feet of concrete will be placed on the project; the equivalent of paving a single 12-foot driving lane for 47 miles.
- The first concrete roadway in America, constructed in Ohio in 1891, is still in service today.
- Concrete surfaces reflect 30- 50 percent more light than asphalt, which can lower the average area temperatures.



Slip Form Paving Machine



Mainline Paving on I-15